

Specification grade, wet listed 71 watt MR16 lamp adjustable fixture. Adjustment mechanism features hot aiming capability, aiming marks and tooless locking. Optics provide glare-free 50° cutoff to lamp and lamp image. For use with all halogen MR16 lamp varieties. Units small size is ideal for tight construction areas. Insulation must be kept 3" away from sides and top of fixture. Optical element can be changed after installation to provide a variety of distributions. e.g. into a Downlight

SPECIFICATION FEATURES

A....Reflector

.040 thick aluminum spun parabolic interior reflector in Clear, Gold, Haze, Warm Haze, Black Alzak® finish painted gloss white or matte white. Special cone colors listed below.

B····Glass

.125 thick tempered clear glass protects lamp from direct spray of water and is retained during relamping.

C...Flange

Self flange reflector or die-cast flange with either matte white or clear coat finish. Die-cast flanges are easily removed for field painting. Elements are keyed for proper insertion.

D....Adjustability

Removable lamp adjustment mechanism provides up to 45° tilt and 361° rotation and locks into any aiming position. Unit is relamped without unlocking adjustments. Translating centerbeam optics maximize light output.

E…Lens

Soft focus lens standard for smooth beam patterns. Up to two filter media can be used which are retained during relamping.

F···Attachment

Positive torsion springs pull flange tight to ceiling. Mechanical light trap eliminates spill light at edge of flange or reflector.

G····Socket

GX5.3 base for Bi-pin MR16 lamps. Back light shield keeps interior of fixture dark.

H....Transformer

Truvolt[™] toroidal transformer with dual-output taps for proper 12.0V operation and quiet operation when dimmed. Dimmer tap compensates for inherent voltage loss from dimmers, resulting in 30% more lumens than traditional laminated transformers. Toroidal design, with 90% or greater efficiency, features a rolled one-piece continuous core of

0 3 1/2 [89mm] 4 3/8" [112mm] Note: O.D. or is 4 7/8" 5 1/8" [130mm]

M3 grade grain oriented silicon steel complete an integral thermal to protect against overheat For dimming, use dimmers rated for electromac ic transformers. Transformer is warranted for 5 years and is serviceable from below ceiling. Note: If a dimming system is operated for construction lighting in its "shunt" mode, i.e. bypa ing the dimmer modules, for an extended period time, fixtures with the dual-tap toroidal transfo should be operated on the "Switched Fixture" put until the dimmers are in use. Operating fixt on the "Dimmed Fixture" output with a full 12 input for an extended period will overdrive the lamp and cause shortened lamp life.

I…Frame/Housing

Hot dipped galvanized 20 gauge steel frame with built in 1/2 inch plaster lip. Gunsights allo for consistent alignment.

J...Junction Box

18 cubic inches, listed for 4#12 AWG or 6#14 AWG 90° C additional feed through conductors has three 1/2" pryouts.

K....Bar Hangers

No Flex[®] bar hangers with positive locking, for use with wood, engineered wood and steel frame joists spaced up to 24" O.C. ship with platform. For use in T-bar ceilings order accessory push on clips. Nailess barb and locator lip provide consistent installation height.

L....Codes

Thermally protected, IP labeled. Unit is airtight and exchanges less than 2.0 CFM with the plenum at a pressure of 75 pascals. Insulation must be kept three inches away from fixture sides and none on top as to entrap heat.

M…Labels

UL and cUL listed, standard wet label, IBEW union made

Matte white is recommended for self flanged reflectors

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	11 7/8" [112mm] [220mm]
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, vv	Ceiling Cutout: 4 3/8" [112mm]
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ENERGY DATA

120V Inp	out	
Lamp	Input	Operating
Watts	Watts	Current
20	23	.19
35	41	.34
37	42	.35
42	47	.39
50	57	.48
65	70	.58
71	77	.64
75	81	.68

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SAMPLE NUMBER: PN3MR-E3AASRC

	Optical Element		Finish		Flange		Accessories	
PN3MR	E3AASR							
PN3MR = 3" Non- IC Low Voltage Housing PN3MR REMOTE = 3" Non-IC Housing for Remote Transformer	E3AASR = 3" MR16 0 - 45° Adjustable Accent Lensed Reflector	Standard C = Clear H = Haze G = Gold WMH = Warm Haze W = Gloss White B = Black MW = Matte	White Custom K = Cognac KH = Cognac Haze CC = Chocolate Custom CCH = Chocolate Haze	BU = Blush Custom Cont. BUH = Blush Haze GP = Graphite GPH = Graphite Haze PN = Pine PNH = Pine SK = Sky	Blank = White die-cast SF = Self Flange SFWF = Self Flange Painted White RAW = Natural Die Cast	MBCLP = 40 Push On T Bar Clips (for 10 Units) PLE3 = Plaster Lip Extension for Max 2" Thick Ceiling L-SPD = Spread Lens L-LNR = Linear	L-LSTRAW = Light Straw Lens L-27K = 2700K dichroic	L-DAY = Daylight Lens L-SPINK = Surprise Pink Lens L-PLAV = Pal Lavender Lens L-HEX = Hex Cell Louver

PHOTOMETRICS					
	90° 90°		30°	30°	45°
Lamp	Luminance cd/m ² @ Maximum Tilt	0° Aiming Angle Horizontal Footcandles	30° Aiming Angle Horizontal Footcandles	30° Aiming Angle Vertical Footcandles	45° Aiming Angle Vertical Footcandles
OS 65MR16Q/0/NSP/10		D FC L W	D FC L W CB	D FC L W CB	D FC L W CB
		4' 618 0.7 0.7	4' 250 1 1 2.3	2' 220 1.2 0.8 3.5	2' 712 0.6 0.5 2.0
Beam Spread: 10°		<u>7' 202 1.1 1.1</u> 10' 99 1.6 1.6	<u>7' 82 1.7 1.8 4.0</u> 10' 40 2.4 2.5 5.8	- <u>3' 98 1.9 1.3 5.2</u> 4' 55 2.5 1.7 6.9	<u>3' 316 0.9 0.7 3.0</u> <u>4' 178 1.2 0.9 4.0</u>
CBCP: 14,000		<u>10 99 1.0 1.0</u> 12' 6" 63 2 2	<u>10 40 2.4 2.5 5.8</u> 12' 6" 26 3 3.2 7.2	<u>- 4 35 2.5 1.7 0.9</u> 5' 35 3.1 2.1 8.7	<u>4 178 1.2 0.9 4.0</u> 5' 114 1.5 1.2 5.0
		Test # H1269	Test # H21273	Test # H21273	Test # H21274
OS 65MR16Q/40/FL	Degree@ 180°@ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB
	<u>85° 0 1869</u>	4' 130 2.3 2.3	4' 85 2.8 2.7 2.3	2' 104 2.1 1.9 3.5	2' 195 1.5 1.7 2.0
Beam Spread: 40°	<u>75° 629 629</u>	$-\frac{7'}{42}$ 4 4	7' 28 5 4.7 4.0	3' 46 3.2 2.9 5.2	3' 87 2.3 2.5 3.0
CPCP: 2 100	65° 385 385 55° 852 568	- <u>10' 21 5.8 5.8</u> 12' 6" 13 7.2 7.2	<u>10' 14 7.1 6.8 5.8</u> <u>12' 6" 9 8.9 8.4 7.2</u>	- <u>4' 26 4.3 3.9 6.9</u> 5' 17 5.3 4.8 8.7	<u>4' 49 3.0 3.3 4.0</u> 5' 31 3.8 4.2 5.0
Test # H21261		_ Test # H21263	Test # H21264		Test # H21265
	Degree@ 180°@ 90°	DFCLW	D FC L W CB	D FC L W CB	D FC L W CB
ac uppinin 106/108215	85° 0 1869	4' 445 1 1	4' 291 1.2 1.2 2.3	2' 252 1.5 1.0 3.5	2' 639 0.8 0.7 2.0
Deems Correctly 1E0	75° 629 629	7' 145 1.8 1.8	7' 95 2.1 2.1 4.0	3' 112 2.2 1.5 5.2	3' 284 1.2 1.1 3.0
Beam Spread: 15° CBCP: 9,500	65° 385 385	10' 71 2.5 2.5	10' 47 3 3 5.8	4' 63 2.9 1.9 6.9	4' 160 1.6 1.5 4.0
Test # H2124	55° 568 284 845° 3686 1382	<u>12' 6" 46 3.1 3.1</u> Test # H21240	12' 6" 30 3.7 3.7 7.2 Test # H21243	- 5' 40 3.7 2.4 8.7 Test # H21243	5' 102 2.1 1.8 5.0 Test # H21244
GE Q50MR16/C/NFL25	Degree@ 180°@ 90° 85° 0 1847	<u>DFC</u> <u>L</u> <u>W</u> 4' 174 1.6 1.6	D FC L W CB 4' 108 2 2.2 0	- D FC L W CB 4' 27 4.5 3.4 6.9	D FC L W CB 6' 28 3.9 3.8 6
	75° 622 622	- <u>7' 57 2.9 2.9</u>	7' 35 3.5 3.8 0	6' 12 6.7 5.1 10.4	8' 16 5.2 5.1 8
Beam Spread: 25°	65° 381 381	10' 28 4.1 4.1	10' 17 5 5.4 0	10' 4 11.2 8.5 17.3	10' 10 6.5 6.4 10
CBCP: 3,000	55° 561 561	12' 6" 18 5.1 5.1	12' 6" 11 6.2 6.7 0	12' 3 13.4 10.2 20.8	12' 7 7.8 7.7 12
Test # H21185	<u>545° 4099 1366</u>	Test # H21187	Test # H1193	Test # H21193	Test # H21185
GE Q50MR16/C/FL40	Degree@ 180°@ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB
	85° 0 0 75° 0 0	<u>4' 129 2.0 2.0</u> 7' 42 3.4 3.4	<u>4' 66 2.8 2.8 2.3</u> 7' 22 5.0 4.8 4.0	- <u>2' 100 1.8 1.7 3.5</u> 3' 45 2.7 2.5 5.2	<u>2' 159 1.5 1.6 2</u> <u>3' 71 2.3 2.4 3</u>
Beam Spread: 40°	75° 0 0 65° 0 0	$-\frac{7}{10'}$ $\frac{42}{21}$ $\frac{3.4}{4.9}$ $\frac{3.4}{4.9}$	10' 11 7.1 6.9 5.8	4' 25 3.6 3.3 6.9	4' 40 3 3.2 4
	55° 0 0	12'6" 13 6.1 6.1	12'6" 7 8.9 8.6 7.2	5' 16 4.5 4.1 8.7	5' 25 3.8 4 5
Test # H21204	45° 0 1997	Test # H21249	Test # H21199	Test # H21202	Test # H21203
PH Q45MR16C/IRC/SP8	Degree@ 180°@ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB
	85° 0 821	4' 696 0.6 0.8	4' 342 1 0.9 2.3	2' 300 1.3 0.8 3.5	2' 722 0.7 0.7 2.0
Beam Spread: 8°	<u>75° 0 277</u> 65° 0 169	<u>7' 227 1.1 1.4</u> 10' 111 1.6 2	<u>7' 112 1.8 1.7 4.0</u> 10' 55 2.5 2.4 5.8	- <u>3' 133 2.0 1.2 5.2</u> 4' 75 2.6 1.5 6.9	<u>3' 321 1.0 1.0 3.0</u> <u>4' 181 1.3 1.3 4.0</u>
CBCP: 16,000	55° 125 250	- 12'6" 71 2 2.5	<u>10 33 2.3 2.4 3.8</u> <u>13' 32 3.3 3.1 7.2</u>	5' 48 3.3 1.9 8.7	5' 116 1.7 1.6 5.0
Test # H22402		Test # H21223	Test # H21227	Test # H21227	Test # H21228
GE Q42MR16C/VNSP	Degree@ 180°@ 90°	D FC L W	D FC L W CB	D FC L W CB	D FC L W CB
	85° 1849 1849	4' 498 0.5 0.8	4' 284 0.8 0.8 2.3	2' 261 1.0 0.7 3.5	2' 571 0.5 0.6 2.0
Beam Spread: 9°	75° 623 623	7' 163 0.9 1.4	7' 93 1.4 1.4 4.0	3' 116 1.5 1.0 5.2	3' 254 0.7 1.0 3.0
CPCP: 12 500	<u>65° 381 381</u> 55° 281 0	- <u>10' 80 1.2 2</u> 12' 6" 51 1.6 2.5	<u>10' 45 2.1 2 5.8</u> <u>12' 6" 29 2.6 2.5 7.2</u>	- <u>4' 65 2.0 1.4 6.9</u> 5' 42 2.5 1.7 8.7	4' 143 0.9 1.3 4.0 5' 91 1.2 1.6 5.0
Test # H21210		_ 12 6 51 1.6 2.5 Test # H21212	12 6 29 2.6 2.5 7.2 Test # H21211	- 5' 42 2.5 1.7 8.7 Test # H21211	5' 91 1.2 1.6 5.0 Test # H21210
		 DFCLW	D FC L W CB	D FC L W CB	D FC L W CB
	Degree @ 1200 @ 000				
	Degree@ 180°@ 90° 85° 0 0	4' 681 0.6 0.8	4' 356 1 0.9 2.3	2' 303 1.3 0.7 3.5	2' 909 0.7 0.5 2.0
Boom Correct 100					2' 909 0.7 0.5 2.0 3' 404 1.0 0.7 3.0
Beam Spread: 10°	85° 0 0 75° 0 0 65° 0 0	4' 681 0.6 0.8 7' 222 1.1 1.4 10' 109 1.6 2	4' 356 1 0.9 2.3 7' 116 1.7 1.5 4.0 10' 57 2.5 2.1 5.8	2' 303 1.3 0.7 3.5 3' 135 2.0 1.1 5.2 4' 76 2.6 1.4 6.9	2' 909 0.7 0.5 2.0 3' 404 1.0 0.7 3.0 4' 227 1.3 1.0 4.0
CBCP: 13,100	85° 0 0 75° 0 0 65° 0 0 55° 284 284	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4' 356 1 0.9 2.3 7' 116 1.7 1.5 4.0 10' 57 2.5 2.1 5.8 12'6" 36 3.1 2.7 7.2	2' 303 1.3 0.7 3.5 3' 135 2.0 1.1 5.2 4' 76 2.6 1.4 6.9 5' 48 3.3 1.8 8.7	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
CBCP: 13,100 Test # H21250	85° 0 0 75° 0 0 65° 0 0 55° 284 284 45° 3225 2304	4' 681 0.6 0.8 7' 222 1.1 1.4 10' 109 1.6 2 12'6" 70 1.9 2.5 Test # H21253 Test # K 12'6''	4' 356 1 0.9 2.3 7' 116 1.7 1.5 4.0 10' 57 2.5 2.1 5.8 12'6'' 36 3.1 2.7 7.2 Test # H21254 Test H2167 1.5 1.5	2' 303 1.3 0.7 3.5 3' 135 2.0 1.1 5.2 4' 76 2.6 1.4 6.9 5' 48 3.3 1.8 8.7 Test # H21254	2' 909 0.7 0.5 2.0 3' 404 1.0 0.7 3.0 4' 227 1.3 1.0 4.0 5' 145 1.6 1.2 5.0 Test # H21255
CBCP: 13,100 Test # H21250 GE Q20MR16C/VNSP7	85° 0 0 75° 0 0 65° 0 0 55° 284 284 45° 3225 2304 Degree@ 180°@ 90°	4' 681 0.6 0.8 7' 222 1.1 1.4 10' 109 1.6 2 12'6" 70 1.9 2.5 Test # H21253 D FC L W	4' 356 1 0.9 2.3 7' 116 1.7 1.5 4.0 10' 57 2.5 2.1 5.8 12'6'' 36 3.1 2.7 7.2 Test # H21254 H2 H2 H2 H2	2' 303 1.3 0.7 3.5 3' 135 2.0 1.1 5.2 4' 76 2.6 1.4 6.9 5' 48 3.3 1.8 8.7 Test # H21254 D FC L W CB	2' 909 0.7 0.5 2.0 3' 404 1.0 0.7 3.0 4' 227 1.3 1.0 4.0 5' 145 1.6 1.2 5.0 Test # H21255 D FC L W CB
Beam Spread: 10° CBCP: 13,100 Test # H21250 GE Q20MR16C/VNSP7	85° 0 0 75° 0 0 65° 0 0 55° 284 284 45° 3225 2304	4' 681 0.6 0.8 7' 222 1.1 1.4 10' 109 1.6 2 12'6" 70 1.9 2.5 Test # H21253 Test # K 12'6''	4' 356 1 0.9 2.3 7' 116 1.7 1.5 4.0 10' 57 2.5 2.1 5.8 12'6'' 36 3.1 2.7 7.2 Test # H21254 Test H2167 1.5 1.5	2' 303 1.3 0.7 3.5 3' 135 2.0 1.1 5.2 4' 76 2.6 1.4 6.9 5' 48 3.3 1.8 8.7 Test # H21254	2' 909 0.7 0.5 2.0 3' 404 1.0 0.7 3.0 4' 227 1.3 1.0 4.0 5' 145 1.6 1.2 5.0 Test # H21255 D FC L W CB 2' 482 0.4 0.3 2.0
Beam Spread: 10° CBCP: 13,100 Test # H21250 GE 020MR16C/VNSP7 Beam Spread: 7° CBCP: 7,400	85° 0 0 75° 0 0 65° 0 0 55° 284 284 45° 3225 2304 Degree@ 180°@ 90° 85° 0 0 75° 0 0 65° 0 0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	2' 303 1.3 0.7 3.5 3' 135 2.0 1.1 5.2 4' 76 2.6 1.4 6.9 5' 48 3.3 1.8 8.7 Test # H21254 CB 2' 150 0.9 0.5 3.5	2' 909 0.7 0.5 2.0 3' 404 1.0 0.7 3.0 4' 227 1.3 1.0 4.0 5' 145 1.6 1.2 5.0 Test # H21255 D FC L W CB 2' 482 0.4 0.3 2.0
Beam Spread: 10° CBCP: 13,100 Test # H21250 GE 020MR16C/VNSP7 Beam Spread: 7° CBCP: 7,400	85° 0 0 75° 0 0 65° 0 0 55° 284 284 45° 3225 2304 Degree@ 180°@ 90° 85° 0 0 75° 0 0 65° 0 0 55° 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4' 356 1 0.9 2.3 7' 116 1.7 1.5 4.0 10' 57 2.5 2.1 5.8 12'6" 36 3.1 2.7 7.2 Test # H21254 D FC L W CB 4' 153 0.8 0.5 2.3 7' 50 1.4 0.9 4.0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2' 909 0.7 0.5 2.0 3' 404 1.0 0.7 3.0 4' 227 1.3 1.0 4.0 5' 145 1.6 1.2 5.0 Test # H21255

Notes and Definitions:

Luminance: To convert cd/m² to footlamberts, multiply by 0.2919

• Data is based upon bare lamps photometrics.

• Beam spread is to 50% center beam candlepower (CBCP.)

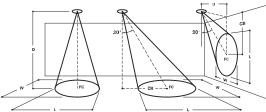
D = Distance to floor or wall.

FC=Footcandles on floor or wall at center beam aiming location.

L = Effective Visual Beam length in feet (50% of maximum footcandle level.)

 $W\,{=}\,Effective$ Visual Beam width in feet (50% of maximum footcandle level.)

 $CB\!=\!Distance$ across or down to center beam location..



Note: Specifications and Dimensions subject to change without notice. Visit our web site at www.cooperlighting.com

COOPER Lighting

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